

Dividend Policy in the Managerial Ownership-Leverage-Performance Nexus: Evidence from Indonesian Consumer Goods Firms

Ronni Andri Wijaya ¹, Aminullah Assagaf ¹ and Elfiswandi ^{1*}

¹ Department of Economics, Faculty of Economics and Business, Universitas Putra Indonesia YPTK Padang, Padang, West Sumatera 25221, Indonesia.

* **Corresponding author:** awheronniwijaya@yahoo.co.id.

ABSTRACT: Consumer goods manufacturers must sustain operations and profitability amid post-pandemic macroeconomic uncertainty. Prior studies report inconsistent effects of managerial ownership and leverage on financial performance, while the mediating role of dividend policy remains underexamined, particularly in Indonesia's consumer goods sector. This study examines the effects of managerial ownership and leverage on financial performance and tests dividend policy as a mediator. The framework integrates Agency Theory, Pecking Order Theory, and Signaling Theory. The population comprised 97 consumer goods manufacturing companies listed on the Indonesia Stock Exchange (IDX) during 2020-2024. Purposive sampling yielded 95 firm-year observations from 19 companies. Secondary data were obtained from audited annual reports and official IDX publications and analyzed using IBM SPSS Statistics 25. Managerial ownership and leverage had significant positive effects on dividend policy. Managerial ownership had a significant positive effect on financial performance, whereas leverage had a significant negative effect. Dividend policy did not significantly affect financial performance. Sobel tests further indicated that dividend policy did not mediate either the managerial ownership-financial performance relationship or the leverage-financial performance relationship. The findings suggest that corporate governance alignment and capital-structure decisions influence financial performance more directly than dividend distribution does in this sample.

Keywords: Managerial ownership, Leverage, Dividend policy, Financial performance, Mediation analysis.

I. INTRODUCTION

A company's core financial objective is to generate sustainable returns while maintaining operational continuity. Profitability indicates how efficiently a company uses its assets and other resources to generate earnings. Managers use profitability to evaluate operating success, employees may benefit from stronger organizational performance, and investors assess profitability when deciding whether to provide capital [1]. The 2020-2024 period was challenging for consumer goods manufacturers listed on the Indonesia Stock Exchange (IDX). Pandemic-related disruption was followed by inflationary pressure associated with higher global food and energy prices, which increased production costs. At the same time, Indonesia's sustainable-finance agenda increased attention to environmental, social, and governance considerations. Consequently, firms' financial

performance during this period reflects both operational capability and their responses to macroeconomic pressure and evolving sustainability expectations [2, 3].

Financial performance measures a company's ability to generate profit or revenue over a specified period and provides a benchmark for comparison with similar firms. It is a principal indicator for evaluating corporate performance [4] and reflects both financial strength and shareholder wealth. Return on assets (ROA) is commonly used to assess financial performance because it indicates how effectively a company generates profit from its total assets [5]. Strong profitability also supports debt repayment, dividend capacity, and future growth. An effective capital structure can help minimize financing costs and improve profitability [6]. Indonesia's economy recovered after the COVID-19 shock, growing by 5.31% in 2022 and 5.05% in 2023; growth was 5.03% in 2024. Within this macroeconomic setting, firm-level factors such as managerial ownership, leverage, and dividend policy may materially influence financial performance [7-9].

Table 1. Return on asset of consumer good manufacturing.

No	Nama Perusahaan	Kode Emiten	Tahun					Rata - rata
			2020	2021	2022	2023	2024	
1	PT. Indofood CBP Sukses Makmur Tbk	ICBP	0.07	0.07	0.05	0.07	0.07	0.06
2	PT. Mayora Indah Tbk	MYOR	0.11	0.06	0.09	0.14	0.10	0.10
3	PT. Unilever Indonesia Tbk	UNVR	0.35	0.30	0.29	0.29	0.21	0.28
4	PT. Wismilak Inti Makmur Tbk	WIIM	0.11	0.09	0.12	0.19	0.10	0.12
5	PT. Ultrajaya Milk Industry & Trading Company Tbk	ULTJ	0.13	0.17	0.13	0.16	0.14	0.14
6	PT. Indofood Sukses Makmur Tbk	INDF	0.05	0.06	0.05	0.06	0.06	0.05
7	PT. H.M.Sampoerna Tbk	HMSP	0.17	0.13	0.12	0.15	0.12	0.13
8	PT. Gudang Garam Tbk	GGRM	0.10	0.06	0.03	0.06	0.01	0.05
9	PT. Tempo Scan Pacific Tbk	TSPC	0.09	0.09	0.09	0.11	0.12	0.10
10	PT. Kalbe Farma Tbk	KLBF	0.12	0.13	0.13	0.10	0.11	0.12
11	PT. Industri Jamu dan Farmasi Sido Muncul Tbk	SIDO	0.24	0.31	0.27	0.24	0.30	0.27
12	Sekar Laut Tbk	SKLT	0.05	0.09	0.07	0.06	0.08	0.07
13	PT Nippon Indosari Corpindo Tbk	ROTI	0.04	0.07	0.10	0.08	0.10	0.08
14	PT.Garudafood Putra Putri Jaya Tbk	GOOD	0.04	0.07	0.07	0.08	0.08	0.07
15	PT.Wilmar Cahaya Indonesia Tbk	BUDI	0.02	0.03	0.03	0.03	0.02	0.03
Rata - rata			0.11	0.12	0.11	0.12	0.11	0.11

Based on the data in Table 1, the financial performance development of consumer goods companies in Indonesia during the 2020-2024 period shows a complex dynamic and significant fluctuations. This can be seen through changes in Return on Assets (ROA), which is a key indicator of a company's profitability in using its assets to generate profit. In 2020, the average Return on Assets (ROA) of companies in the consumer goods sector was 0.11. This value shows that, in general, companies were still able to generate profits from the assets they owned, even though they faced economic pressures due to the COVID-19 pandemic. In 2021, the average ROA increased to 0.12, indicating an improvement in the company's financial performance as economic conditions began to recover. In 2022, the average ROA went back to 0.11, showing relatively stable profitability despite external pressures. This stability suggests that the company has been able to adjust its cost structure and use of assets more efficiently. In 2023, the average ROA rose to 0.12, reflecting better

performance in utilizing assets to generate profit. This increase was driven by rising consumer activity, operational stability, and sales recovery. However, in 2024, the average ROA fell back to 0.11, highlighting new challenges in the company's financial performance, such as higher operating costs, inflation pressures, and increasingly tough industry competition. Overall, the ROA development of companies in the consumer goods sector during the 2020-2024 period shows a fairly normal fluctuation pattern with a tendency to stabilize, where the ups and downs of ROA are influenced by the company's ability to manage assets, cost efficiency, macroeconomic conditions, and the operational strategies implemented.

The sector's average ROA fluctuated between 0.11 and 0.12 during 2020-2024 and ended at the same level at which it began (0.11). The pattern therefore indicates relative stability with year-to-year variation, rather than a sustained increase across the full period. The manufacturing sector contributes substantially to Indonesia's economy, and dividend decisions remain important to shareholders and capital-market participants. Because prior findings concerning managerial ownership, leverage, dividend policy, and financial performance remain inconsistent, this study examines these relationships in Indonesian consumer goods manufacturing firms under the title, "Dividend Policy in the Managerial Ownership-Leverage-Performance Nexus: Evidence from Indonesian Consumer Goods Firms."

Even though there have been many previous studies on the factors that specifically affect financial performance, the mediating role of dividend policy in such situations hasn't been discussed much, especially in developing markets like Indonesia. During the COVID-19 pandemic, companies faced huge challenges, including disruptions in production processes, falling consumer demand, supply chain issues, and increased financial uncertainty. These factors haven't been fully integrated into previous studies on financial performance, creating a clear research gap. This study is based on Agency Theory and Signaling Theory, which explain managerial behavior, capital structure decisions, and market signaling effects. This research is important because it provides empirical evidence on how factors affect financial performance during periods of crisis and recovery, as well as offering practical insights for investors, policymakers, and company managers.

Research on the influence of managerial ownership on dividend policy and financial performance still shows inconsistent findings. Some studies find that managerial ownership has a positive effect on dividend policy because increased shareholding by management can align the interests of managers and shareholders, encouraging more optimal dividend distribution. On the other hand, other studies show that managerial ownership has no effect or even a negative effect on dividend policy because management prefers to retain earnings as a source of internal funding. Similarly, in the relationship between managerial ownership and financial performance, previous research results still show inconsistencies. Some studies conclude that managerial ownership can improve financial performance by increasing decision-making efficiency and reducing agency costs. However, other studies show that an increase in managerial ownership does not always lead to better financial performance; in certain conditions, it can even cause managerial entrenchment, which is a situation where managers who hold large shares become harder to monitor, so the decisions they make do not always enhance the company's performance. Besides the empirical inconsistencies, most previous studies only tested the direct relationship between managerial ownership and dividend policy or the direct relationship between managerial ownership and financial performance. Research that explains the mechanism of how managerial ownership affects financial performance through dividend policy as an intervening variable is still relatively limited. In other words, the existing literature hasn't really explained whether dividend policy is a corporate governance mechanism that can transmit the influence of managerial ownership on improving financial performance.

From a theoretical perspective, previous research also tends to use Agency Theory to explain the relationship between managerial ownership and dividend policy, or use Signaling Theory to explain the effect of dividend policy on market response. However, there are still few studies that

integrate these two theories into a single mediation model, so the mechanism of the relationship between variables has not been explained comprehensively. Therefore, this study develops a model that integrates Agency Theory as the basis for the relationship between managerial ownership and dividend policy and Signaling Theory as the basis for the relationship between dividend policy and financial performance. Furthermore, most previous studies were carried out across various industry sectors or all companies listed on the Indonesia Stock Exchange. The characteristics of manufacturing companies in the consumer goods subsector have different investment patterns, working capital needs, and dividend policies compared to other sectors. Therefore, retesting this mediation model on consumer goods manufacturing companies is expected to provide more specific empirical evidence and enrich the literature on mechanisms for improving financial performance. Based on the discussion above, this study answers the following research questions:

- How do managerial ownership and leverage affect financial performance?
- Can dividend policy mediate the relationship between these variables and financial performance?
- Based on the theoretical framework and research gaps identified, the following hypotheses are proposed:
- H1: Managerial Ownership has a significant effect on Dividend Policy.
- H2: Leverage has a significant effect on Dividend Policy.
- H3: Managerial Ownership has a significant effect on Financial Performance.
- H4: Leverage has a significant effect on Financial Performance.
- H5: Dividend Policy has a significant effect on Financial Performance.
- H6: Dividend Policy can mediate between Managerial Ownership and Financial Performance.
- H7: Dividend Policy can mediate between Leverage and Financial Performance.

II. RELATED WORK

This section establishes the theoretical foundations and defines the variables and measurement formulas used in the empirical analysis.

1. AGENCY THEORY

Agency Theory explains the contractual relationship between a company's owners (principals) and its managers (agents), who are authorized to manage the company and make decisions on the owners' behalf. Conflicts can arise because managers may not always act entirely in shareholders' interests. Differences in objectives, information asymmetry, and managers' incentives to prioritize personal interests can generate agency costs that affect financial performance. In consumer goods manufacturing firms listed on the IDX, agency conflicts may arise in decisions concerning managerial ownership, dividend policy, and leverage. Managerial ownership can align managers' and shareholders' interests, while dividends can reduce managers' discretionary control over free cash flow. Debt may also discipline management through required interest and principal payments, although excessive debt increases financial distress and bankruptcy risk. Agency Theory therefore provides a conceptual basis for expecting ownership structure, dividend policy, and leverage to influence corporate financial performance [10].

2. SIGNALING THEORY

Signaling Theory holds that managers possess more information about a company's condition and prospects than external investors and creditors. Management can reduce this information asymmetry through financial disclosures and corporate policies. Stable or increasing dividends may signal strong cash flow and favorable profit expectations, whereas dividend reductions may be interpreted negatively [11]. Debt policy can also signal management's confidence in future cash flows, although excessive leverage may instead signal financial risk and potential distress [12].

3. FINANCIAL PERFORMANCE

Financial performance is a primary basis on which investors, creditors, and other stakeholders assess a company's prospects and financial health [13]. Strong financial performance can increase

investor confidence and facilitate access to external financing. Financial performance is measured as follows [9]:

$$ROA = \frac{\text{earning after tax}}{\text{Total of Asset}} \times 100\% \quad (1)$$

ROA denotes return on assets, earnings after tax denotes the company's net income after tax, and total assets denotes the company's total assets.

4. MANAGERIAL OWNERSHIP

Managerial ownership (insider ownership) is the percentage of outstanding shares held by directors, managers, commissioners, or other parties directly involved in corporate decision-making. Managerial ownership is measured as follows [14]:

$$\text{manaarial ownershiv} = \frac{\text{Number of Shares owned by management}}{\text{Total of shares}} \times 100\% \quad (2)$$

5. LEVERAGE

Leverage is measured using the debt-to-equity ratio (DER), which compares a company's total liabilities with its total equity. A higher DER indicates greater reliance on creditors and a higher degree of financial leverage [15]. Leverage is measured as follows:

$$DER = \frac{\text{Total of Debt}}{\text{Total of Equily}} \times 100\% \quad (3)$$

DER denotes the debt-to-equity ratio, total debt denotes the company's total liabilities, and total equity denotes the company's total shareholders' equity.

6. DIVIDEND POLICY

Dividend policy concerns the proportion of earnings distributed to shareholders. In this study, it is measured using the dividend payout ratio [16]:

$$DPR = \frac{\text{DPS}}{\text{EPS}} \times 100\% \quad (4)$$

Dividends per share (DPS) denotes the cash dividend paid for each outstanding share, and earnings per share (EPS) denotes net earnings attributable to each outstanding ordinary share.

III. MATERIAL AND METHOD

1. DATA COLLECTION

This study uses secondary data obtained from the audited annual reports of consumer goods manufacturing firms listed on the IDX. The data include information from balance sheets, income statements, and related disclosures. Documentary review was used to collect data from annual reports, IDX publications, the Indonesian Capital Market Directory, and other official materials available through <https://www.idx.co.id>.

The purposive-sampling criteria were: (1) continuous listing during 2020-2024; (2) complete financial data throughout the study period; (3) financial reporting in Indonesian rupiah; and (4) payment of cash dividends. The population comprised 97 consumer goods manufacturing companies listed on the IDX, and 19 companies met all criteria, yielding 95 firm-year observations.

Table 2. Criteria for selecting a research sample.

No	Sample Selection Criteria	Amount
1	Consumer goods manufacturing companies listed on the Indonesia Stock Exchange (IDX) from 2020-2024	97
2	Consumer goods manufacturing companies that were listed during the 2020-2024 period.	(44)
3	Consumer goods manufacturing company that does not have complete data consistently during the 2020-	(1)

	2024 period.	
4	Consumer goods manufacturing company that experienced losses in the 2020-2024 period	(3)
5	Consumer goods manufacturing company that didn't pay out cash dividends during the 2020-2024 period	(30)
6	The number of samples that meet the criteria	19
7	The number of samples over 5 years of observation (19x5)	95

Source: www.idx.co.id

2. RESEARCH DESIGN

The dataset has a panel structure comprising 19 companies observed from 2020 to 2024. Variables were selected on theoretical and empirical grounds. Multiple regression was used to estimate direct relationships, and path analysis was used to evaluate the proposed mediation model. Reliability was supported by the use of audited financial statements and standardized financial ratios.

2.1 Data Analysis

The data were tabulated and analyzed using IBM SPSS Statistics 25. Regression assumptions were assessed before hypothesis testing. Residual normality was evaluated using the Kolmogorov-Smirnov test; a p-value greater than 0.05 indicates that the null hypothesis of normality is not rejected [17]. Multicollinearity was assessed using tolerance and variance inflation factor (VIF) values, with tolerance above 0.10 and VIF below 10 indicating no serious multicollinearity. Heteroscedasticity was assessed using the Glejser test, for which p-values above 0.05 indicate no statistically detectable heteroscedasticity. Autocorrelation was evaluated using the Durbin-Watson statistic and the relevant lower and upper critical bounds. Direct and indirect effects were assessed using path analysis and the Sobel test [16, 18].

2.2 Hypothesis Testing

Coefficient of Determination (R²): R² indicates the proportion of variance in the dependent variable explained collectively by the predictors in a multiple-regression model [19].

2.3 Testing of Hypothesis (t-test)

The t-test evaluates whether each regression coefficient differs significantly from zero while the other predictors are held constant. Statistical significance was assessed at alpha = 0.05 [20].

2.4 Path Analysis

Path analysis is used to estimate prespecified direct and indirect relationships among variables in a theoretically grounded model. Its interpretation depends on the quality of the underlying theory and research design [21]. The path equations are as follows Model 1 : $Z = pZX1 + pZX2 + \epsilon1$ Model 2 : $Y = pYX1 + pYX2 + pZY + \epsilon2$

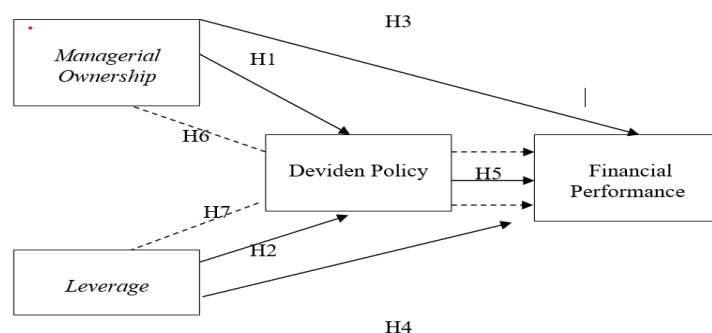


FIGURE 1. Conceptual model.

2.5 Sobel Analysis

The mediation effect was assessed using the Sobel test, which evaluates the statistical significance of an indirect effect [22]. Because the sampling distribution of an indirect effect may be nonnormal, contemporary mediation research generally recommends bootstrap confidence intervals; nevertheless, the Sobel test remains common in regression-based mediation studies [23].

The Sobel statistic value is calculated using the following equation:

$$x = \frac{a \times b}{\sqrt{(b^2 \times Sa^2) + (a^2 \times Sb^2)}} \quad (5)$$

Explanation:

a = regression coefficient between the independent variable and the mediating variable.

b = regression coefficient between the mediating variable and the dependent variable.

Sa = standard error of regression coefficient a.

Sb = standard error of regression coefficient b.

The decision-making criteria are as follows:

- If the calculated Z value > 1.96 or the p-value < 0.05, then the dividend policy is proven to mediate the relationship between the independent variable and financial performance.
- If the calculated Z value ≤ 1.96 or the p-value ≥ 0.05, then the dividend policy is not proven to mediate the relationship between the independent variable and financial performance.

IV. DATA ANALYSIS

All variables were calculated using the formulas presented in the preceding section. Multiple regression was used to estimate direct relationships with financial performance, and path analysis was used to estimate the specified direct and indirect relationships.

1. RESULT OF CLASSICAL ASSUMPTION TEST

1.1. Test of Normality

Residual normality was assessed using the one-sample Kolmogorov-Smirnov test. A significance value greater than 0.05 indicates that the null hypothesis of a normal residual distribution is not rejected.

Table 3. Result of normality test of model I.

N 95	
Normal Parameters ^a ,	Mean 0.000000
	Std. Deviation 1.12726238
	Absolute 0.040
Most Extreme Differences	Positive 0.040
	Negative -0.033
	Test Statistic .040
	Asymp. Sig. (2-tailed) .935

^a Test distribution is Normal. ^b Calculated from data.

The Kolmogorov-Smirnov significance value for Model I was 0.935, which is greater than 0.05; therefore, the null hypothesis of residual normality was not rejected.

Table 4. Result of normality test of model II.

N 95	
Normal Parameters ^a ,	Std. Deviation 0.72284099

Most Extreme Differences	Absolute	0.079
	Positive	0.079
	Negative	-0.069
	Test Statistic	.079
	Asymp. Sig. (2-tailed)	.229

^a Test distribution is Normal. ^b Calculated from data.

The Kolmogorov-Smirnov significance value for Model II was 0.229, which is greater than 0.05; therefore, the null hypothesis of residual normality was not rejected.

1.2. Test of Multicollinearity

The multicollinearity test seeks to determine whether the independent variables in the regression model are correlated.

Table 5. Multicollinearity test result model I.

Model	Tolerance	VIF
Managerial Ownership	.915	1.093
Leverage	.952	1.050

All reported VIF values were below 10 and all tolerance values exceeded 0.10; therefore, no serious multicollinearity was detected in Model I.

Table 6. Multicollinearity test result model II.

Model	Tolerance	VIF
Managerial Ownership	.964	1.038
Leverage	.956	1.047
Dividend Policy	.989	1.011

All reported VIF values were below 10 and all tolerance values exceeded 0.10; therefore, no serious multicollinearity was detected in Model II.

1.3. Test of Autocorrelation

Table 7. Autocorrelation test result model I.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.103 ^a	.011	.142	39.14024	1.053

- Predictors: (Constant), KM, LV
- Dependent Variable: Dividend Policy

Table 7 reports a Durbin-Watson statistic of 1.053 for Model I. A formal conclusion concerning autocorrelation requires comparison with the appropriate lower and upper critical values for the stated sample size and number of predictors.

Table 8. Autocorrelation test result model II.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.336 ^a	.013	.169	133.98223	.774

- Predictors: (Constant), KM, LV, DPR

- Dependent Variable: Financial Performance

Table 8 reports a Durbin-Watson statistic of 0.774 for Model II. A formal conclusion concerning autocorrelation requires comparison with the appropriate lower and upper critical values for the stated sample size and number of predictors.

1.4. Result of Hypothesis Testing

Table 9. Coefficients test result model I.

Model	Variable	B	Std. Error	Beta	T	Sig.
1	(Constant)	2.623	1.612	—	1.627	.107
	Managerial Ownership	.097	.043	.128	2.256	.023
	Leverage	.032	.016	.140	2.057	.042

The following test can be carried out based on the findings from examining the influence of the following variables on financial performance (Y) with dividend policy (Z) acting as a mediating variable: managerial ownership (X1), and leverage (X2). Checking Hypothesis 1 (H1). Based on the test results, Managerial Ownership (X1) has a t-statistic value of 2.256 with a significance level of 0.023. This shows that the Managerial Ownership (X1) variable affects Dividend Policy in food and beverage manufacturing companies listed on the Indonesia Stock Exchange during 2020–2024, because this value is lower than the 5% significance level ($0.023 < 0.05$). Checking Hypothesis 2 (H2). Based on the test results, Leverage (X2) has a t-statistic value of 2.057 with a significance level of 0.042. This shows that the Leverage (X2) variable affects Dividend Policy in food and beverage manufacturing companies listed on the Indonesia Stock Exchange during 2020–2024, because this value is lower than the 5% significance level ($0.042 < 0.05$).

Table 10. Coefficients test result model II.

Model	Variable	B	Std. Error	Beta	T	Sig.
1	(Constant)	7.623	2.294	—	3.322	.001
	Managerial Ownership	.060	.019	.180	3.157	.002
	Leverage	-.029	.009	-.326	-3.402	.000
	Dividend Policy	.096	.076	.540	1.263	.070

Checking the third hypothesis (H3). Based on the test results, managerial ownership (X1) has a t-statistic of 3.157 with a significance level of 0.002. This shows that the Managerial Ownership variable (X1) affects Financial Performance in food and beverage manufacturing companies listed on the Indonesia Stock Exchange during 2020–2024, because this value is lower than the 5% significance level ($0.002 < 0.05$).

Checking the fourth hypothesis (H4). Based on the test results, Leverage (X2) has a t-statistic value of -3.402 with a significance level of 0.000. This shows that the Leverage (X2) variable has a negative and significant effect on Financial Performance in food and beverage manufacturing companies listed on the Indonesia Stock Exchange during 2020–2024, because this value is lower than the 5% significance level ($0.000 < 0.05$). Testing the fifth hypothesis (H5). Dividend Policy (Z) has a t-statistic value of 1.263 with a significance level of 0.070, according to the test results. The Dividend Policy (Z) variable does not affect the financial performance of consumer sector manufacturing companies listed on the Indonesia Stock Exchange from 2020–2024, because it has a value higher than the 5% significance level ($0.070 > 0.05$).

Table 11. ANOVA test result model I.

Model	Source	Sum of Square	df	Mean Square	F	Sig
1	Regression	.081	3	.027	6.179	.001 ^b
	Residual	.396	92	.004		
	Total	.476	95			

As shown in Table 11, the model's F-statistic was 6.179 with $p = 0.001$. Because $p < 0.05$, the predictors jointly had a statistically significant relationship with the dependent variable.

The reported adjusted R-squared value was 0.169, indicating that the predictors explained 16.9% of the adjusted variance in dividend policy; the remaining variance was attributable to factors outside the model and random error.

Table 12. ANOVA test result model II.

Model	Source	Sum of Square	df	Mean Square	F	Sig
1	Regression	1.107	2	.020	7.039	.003 ^b
	Residual	.291	93	.014		
	Total	.598	95			

As shown in Table 12, the model's F-statistic was 7.039 with $p = 0.003$. Because $p < 0.05$, the predictors jointly had a statistically significant relationship with the dependent variable. The reported adjusted R-squared value was 0.142, indicating that the predictors explained 14.2% of the adjusted variance in financial performance; the remaining variance was attributable to factors outside the model and random error.

2. RESULT OF PATH ANALYSIS

Path analysis extends multiple regression by estimating prespecified direct and indirect relationships among variables. The resulting paths should be interpreted as model-based associations rather than definitive proof of causality.

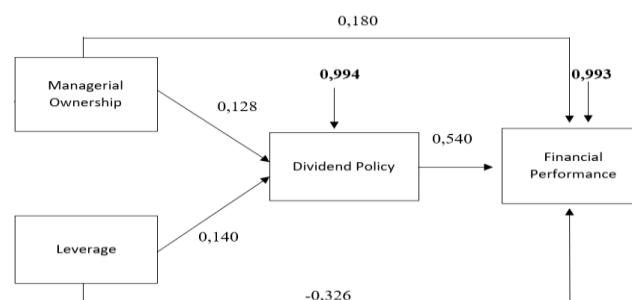


FIGURE 2. Conceptual path analysis.

From model I, the beta values are obtained for the coefficients $X_1 = 0.128$, $X_2 = 0.140$, and for the value $e_{11} = \sqrt{1 - R^2_{\text{Square}}} = \sqrt{1 - 0.011} = 0.994$. From model II, the beta values are obtained for the coefficients $X_1 = 0.180$, $X_2 = -0.326$, $Z = 0.540$ and for the value $e_{11} = \sqrt{1 - R^2_{\text{Square}}} = \sqrt{1 - 0.013} = 0.993$.

Based on the path coefficients shown in Figure 2, the indirect effects of managerial ownership and leverage on financial performance through dividend policy were evaluated using the Sobel test.

2.1 Sobel Test for Hypothesis 6 (H6)

The indirect pathway was Managerial Ownership → Dividend Policy → Financial Performance:

$$a = 0.097, \quad SE_a = 0.043, \quad b = 0.096, \quad SE_b = 0.076$$

The indirect effect was:

$$ab = (0.097)(0.096) = 0.009312$$

The standard error of the indirect effect was calculated as:

$$SE_{ab} = \sqrt{b^2 SE_a^2 + a^2 SE_b^2} \quad (6)$$

$$SE_{ab} = \sqrt{(0.096^2)(0.043^2) + (0.097^2)(0.076^2)}$$

$$SE_{ab} = \sqrt{0.00001704 + 0.00005434} = 0.00845$$

The Sobel statistic was:

$$Z = \frac{ab}{SE_{ab}} = \frac{0.009312}{0.00845} = 1.10 \quad (7)$$

Because $Z = 1.10 < 1.96$ ($p \approx 0.27$), dividend policy did not significantly mediate the relationship between managerial ownership and financial performance. Therefore, H6 was not supported.

2.2 Sobel Test for Hypothesis 7 (H7)

The indirect pathway was Leverage → Dividend Policy → Financial Performance:

$$a = 0.032, \quad SE_a = 0.016, \quad b = 0.096, \quad SE_b = 0.076$$

The indirect effect was:

$$ab = (0.032)(0.096) = 0.003072$$

The standard error of the indirect effect was:

$$SE_{ab} = \sqrt{(0.096^2)(0.016^2) + (0.032^2)(0.076^2)}$$

$$SE_{ab} = \sqrt{0.00000236 + 0.00000591} = 0.00288$$

The Sobel statistic was:

$$Z = \frac{0.003072}{0.00288} = 1.07$$

Because $Z = 1.07 < 1.96$ ($p \approx 0.29$), dividend policy did not significantly mediate the relationship between leverage and financial performance. Therefore, H7 was not supported.

Table 13. Calculation of direct and indirect effect.

Statement	Z-Sobel	P-Value	Decision
The influence of managerial ownership on financial performance with dividend policy	1.10	0.27	does not significantly mediate
The influence of leverage on financial performance with dividend policy	1.07	0.29	does not significantly mediate

For Hypothesis 6 (H6), the Sobel test indicated that dividend policy did not significantly mediate the relationship between managerial ownership and financial performance ($Z = 1.10$, $p = 0.27$); therefore, H6 was not supported. For Hypothesis 7 (H7), dividend policy did not significantly mediate the relationship between leverage and financial performance ($Z = 1.07$, $p = 0.29$); therefore, H7 was not supported.

3. DISCUSSION OF RESULT

The significant relationships of managerial ownership and leverage with the outcome variables can be interpreted through Agency Theory and Signaling Theory. Managerial ownership may align managers' and shareholders' interests, while leverage may communicate information about

financing capacity and risk. The nonsignificant effect of dividend policy on financial performance suggests that dividend distributions did not translate into higher profitability within the observed sample.

4. DISCUSSION OF T-TEST

Managerial ownership and dividend policy. Managerial ownership had a positive and significant effect on dividend policy ($t = 2.256$, $p = 0.023$), supporting H1. This finding differs from prior research reporting no significant effect [24].

Agency Theory explains that conflicts may arise when ownership and control are separated. Managerial shareholding can reduce this conflict by aligning managers' interests with those of shareholders, because managers share the financial consequences of their decisions [10]. Managers who are also shareholders may therefore seek a dividend policy that balances internal financing needs with shareholder expectations.

Signaling Theory further suggests that stable or increasing dividends can communicate management's confidence in the firm's future cash flows and prospects [11]. In the present framework, Agency Theory explains how managerial ownership may improve decision alignment, whereas Signaling Theory explains how dividend decisions convey information to the market.

Leverage and dividend policy. Leverage had a positive and significant effect on dividend policy ($t = 2.057$, $p = 0.042$), supporting H2. This result is consistent with prior research reporting a significant relationship between leverage and dividend policy [25].

The positive relationship between leverage and dividend policy is consistent with the view that debt can constrain managerial discretion and that continued dividend payments by leveraged firms may communicate confidence in future cash flows [10, 12]. However, this interpretation should be considered alongside the financial risks created by high debt obligations.

Managerial ownership and financial performance. Managerial ownership had a positive and significant effect on financial performance ($t = 3.157$, $p = 0.002$), supporting H3. Prior evidence is mixed: one study reported a significant relationship [26], whereas another reported no significant effect [27].

This finding is also consistent with Signaling Theory, which says that higher managerial ownership sends a positive signal to investors about management's confidence in the company's future prospects. By holding shares in the company, managers show their commitment to creating long-term value, which boosts investor confidence and supports the company's financial performance.

Leverage and financial performance. Leverage had a negative and significant effect on financial performance ($t = -3.402$, $p < 0.001$), supporting H4. This finding is consistent with prior research reporting a negative and significant effect of leverage on financial performance [28].

The research results show that leverage has a negative and significant effect on financial performance. This finding supports Agency Theory, which states that excessive use of debt can increase agency costs between shareholders and creditors. The higher the leverage, the greater the company's obligation to meet interest and principal payments, so the profits available become smaller and impact a decline in financial performance. Meanwhile, according to Signaling Theory, a high level of leverage can be a negative signal for investors because it shows that the company has a higher financial risk. Investors might think that the company will have trouble meeting its debt obligations, making the company's profitability prospects less promising.

Dividend Policy to Financial Performance. The hypothesis test results showed that the t -value for dividend policy on financial performance was 1.263 with a significance level of 0.070. This indicates that the significance level is greater than 0.05 ($0.070 > 0.05$), so H5 is rejected. This result is contrary to previous studies which stated that dividend policy affects financial performance. The findings indicate that dividend policy does not have a significant effect on financial performance.

This result suggests that dividend payments do not necessarily improve a firm's profitability or operating efficiency. Although dividends may convey information about financial condition and

reduce managers' discretionary use of free cash flow, these mechanisms alone may be insufficient to improve financial performance, which also depends on operating efficiency, investment decisions, capital structure, and market conditions.

Managerial ownership and financial performance through dividend policy. The Sobel test showed that dividend policy did not mediate the relationship between managerial ownership and financial performance ($Z = 1.10$, $p = 0.27$).

The findings indicate that dividend policy does not significantly mediate the relationship between managerial ownership and financial performance. Although managerial ownership significantly influences dividend policy, dividend policy does not significantly affect financial performance. Consequently, the indirect effect is not statistically significant. This finding is consistent with Agency Theory, which suggests that managerial ownership improves financial performance primarily through aligning the interests of managers and shareholders, thereby enhancing managerial efficiency and decision-making rather than through dividend distribution. Furthermore, from the perspective of Signaling Theory, although dividend policy serves as a signal of the firm's financial condition, such signals are insufficient to explain improvements in financial performance. Therefore, managerial ownership contributes more directly to financial performance than indirectly through dividend policy.

Leverage and Financial Performance with Dividend Policy. Based on the sobel test, it was found that dividend policy cannot mediate the relationship between leverage and financial performance. The results show a Sobel Z value of 1.07 and a P Value of 0.29, which is higher than the 0.05 significance level. The findings indicate that dividend policy does not significantly mediate the relationship between leverage and financial performance. Although leverage significantly affects dividend policy, dividend policy does not significantly influence financial performance. Consequently, the indirect effect is not statistically significant. This finding supports Agency Theory, which suggests that leverage directly affects financial performance through changes in debt obligations, financing costs, and financial risk rather than through dividend distribution. Furthermore, Signaling Theory argues that while dividend policy may provide information regarding a firm's financial condition, such signals are insufficient to explain how leverage influences financial performance. Therefore, the effect of leverage on financial performance occurs primarily through a direct mechanism rather than an indirect mechanism via dividend policy.

V. CONCLUSION

This study concludes that managerial ownership and leverage significantly influenced dividend policy in consumer goods manufacturing companies listed on the IDX during 2020-2024, and both relationships were positive. Managerial ownership had a significant positive effect on financial performance, whereas leverage had a significant negative effect. Dividend policy did not significantly affect financial performance and did not mediate either the managerial ownership-financial performance relationship or the leverage-financial performance relationship. Financial performance in this sample was therefore associated more directly with ownership alignment and capital structure than with dividend distribution.

The findings contribute to the literature by strengthening Agency Theory as the primary explanation of the relationships among managerial ownership, leverage, and financial performance, while indicating that Signaling Theory provides limited support in explaining the mediating role of dividend policy. Practically, the results suggest that companies should focus on improving managerial ownership alignment and maintaining an optimal capital structure rather than relying on dividend policy as a mechanism for enhancing financial performance.

Overall, these findings suggest that improving financial performance depends more on strengthening corporate governance through managerial ownership and maintaining an optimal capital structure than on using dividend policy as a mechanism to enhance financial performance. This study provides practical implications for the following stakeholders:

1. FOR COMPANY MANAGEMENT

The findings can inform financial-policy decisions, particularly efforts to balance internal financing needs, debt obligations, and shareholder expectations. Management should consider the direct relationships of managerial ownership and leverage with financial performance rather than assuming that dividend policy will improve profitability.

2. FOR INVESTORS

The findings provide investors with evidence that profitability, managerial ownership, and leverage warrant attention alongside dividend policy. In this sample, dividend policy alone was not a reliable indicator of improved financial performance.

3. IMPLICATIONS FOR FUTURE RESEARCHERS

First, future research can develop the model by adding other variables that theoretically could affect financial performance, such as Corporate Governance Quality, ESG Performance, Investment Efficiency, Firm Life Cycle, Business Risk, or Financial Constraints, so that it can provide a more comprehensive explanation of the factors that influence financial performance. Second, future research can use other mediation or moderation variables, such as capital structure, investment decisions, corporate governance quality, or business risk, so that the mechanism of the relationships between variables can be explained in more depth. Third, future research can expand the research subjects by comparing manufacturing companies with other sectors, such as finance, energy, infrastructure, or companies that extensively implement ESG practices, so that a better understanding of the differences in characteristics between industries can be obtained. Fourth, future research is recommended to use a longer observation period and a more comprehensive analysis method, such as covariance-based Structural Equation Modeling (SEM) or Partial Least Squares Structural Equation Modeling (PLS-SEM) with bootstrapping techniques, so that both direct and indirect relationships between variables can be tested more robustly.

Conflicts of Interest

The authors declare no conflicts of interest.

Author Contributions

Conceptualization, R.A.W., A.A., and E.; methodology, R.A.W., A.A., and E.; formal analysis, R.A.W.; data curation, R.A.W. and E.; writing-original draft preparation, R.A.W.; writing-review and editing, A.A. and E.; supervision, A.A.; project administration, R.A.W. All authors contributed to the study and approved the published version of the manuscript.

Funding Statement

This study has no external funding.

Data Availability Statement

Data are available from the authors upon request.

Acknowledgments

Not applicable.

REFERENCES

1. Agustina, H., & Soelistya, D. (2018). Analisis struktur kepemilikan perusahaan terhadap profitabilitas perusahaan makanan dan minuman yang terdaftar di BEI. *Business and Finance Journal*, 3(2), 85–94.
2. Amarhyouz, A., & Azegagh, J. (2025). Financial performance of Moroccan listed companies: A multidimensional analysis of internal, macroeconomic, and institutional determinants using dynamic panel data. *Qubahan Academic Journal*, 5(2), 402–419.
3. Balqis, B. (2021). Determinasi earning per share dan return saham: Analisis return on asset, debt to equity ratio, dan current ratio. *Jurnal Ilmu Manajemen Terapan*, 2(5), 665–675.

4. Bank Indonesia. (2023). 2022 economic report on Indonesia. https://www.bi.go.id/en/publikasi/laporan/Pages/LPI_2022.aspx
5. Rais, B. N., & Santoso, H. F. (2018). Pengaruh kepemilikan manajerial, kepemilikan institusional, profitabilitas dan ukuran perusahaan terhadap kebijakan deviden. *Jurnal Akuntansi*, 18(1), 71–84.
6. Bhattacharya, S. (1979). Imperfect information, dividend policy, and the “bird in the hand” fallacy. *The Bell Journal of Economics*, 10(1), 259–270.
7. BPS-Statistics Indonesia. (2023). Indonesia GDP growth rate 5.31 percent (2022). <https://www.bps.go.id/en/pressrelease/2023/02/06/1997/indonesia-gdp-growth-rate-5-31-percent--2022-.html>
8. BPS-Statistics Indonesia. (2025). Indonesia's economic growth 2024 was 5.03 percent. <https://www.bps.go.id/en/pressrelease/2025/02/05/2408/indonesia-s-economic-growth-2024-was-5-03-percent.html>
9. Ekadjaja, A., Wijaya, A., & Vernetta. (2021). Factors affecting firm performance in manufacturing companies in Indonesia Stock Exchange. *Jurnal Akuntansi*, 25(1), 154–167.
10. Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis* (8th ed.). Cengage.
11. Yuniningsih, Y., Hasna, N. A., Wajdi, M. B. N., & Widodo, S. (2018). Financial performance measurement with signaling theory review on automotive companies listed in Indonesia Stock Exchange. *International Journal of Entrepreneurship and Business Development*, 1(2), 167–177.
12. Ichsan, I., Silvia, I., Mahdawi, M., & Syamni, G. (2021). The financial performance of manufacturing companies in IDX and some factors that influence. *Jurnal Aplikasi Manajemen*, 19(2), 354–362.
13. Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305–360.
14. Madyoningrum, A. W. (2019). Pengaruh firm size, leverage dan profitabilitas terhadap kebijakan deviden. *Jurnal Bisnis dan Manajemen*, 6(1), 45–55.
15. Martini, R. S., & Siddi, P. (2021). Pengaruh return on assets, debt to equity ratio, total assets turnover, net profit margin, dan kepemilikan manajerial terhadap pertumbuhan laba. *AKUNTABEL*, 18(1), 99–109.
16. Maulana, B. D., & Yuliasuti, R. (2022). Pengaruh ukuran perusahaan, likuiditas, dan leverage terhadap profitabilitas. *Jurnal Ilmu dan Riset Akuntansi*, 11(11), 1–14.
17. Nazma, S., Ahmad, G. N., & Dalimunthe, S. (2023). Pengaruh likuiditas dan leverage terhadap kebijakan dividen dengan ukuran perusahaan sebagai variabel kontrol (studi kasus pada perusahaan sektor infrastruktur yang terdaftar di BEI tahun 2015–2020). *SINOMIKA: Jurnal Publikasi Ilmiah Bidang Ekonomi dan Akuntansi*, 1(6), 1539–1554.
18. Ndayani, A. F., Dewi, D., Afni, R. D. L., Argatha, V. Y., & Widyawati, D. (2020). Pengaruh kepemilikan manajerial, leverage, dan firm size. *Jurnal Ilmu dan Riset Akuntansi*.
19. Otoritas Jasa Keuangan. (2021). Sustainable finance roadmap phase II (2021–2025). [https://ojk.go.id/id/berita-dan-kegiatan/publikasi/Pages/Roadmap-Kuangan-Berkelanjutan-Tahap-II-\(2021-2025\).aspx](https://ojk.go.id/id/berita-dan-kegiatan/publikasi/Pages/Roadmap-Kuangan-Berkelanjutan-Tahap-II-(2021-2025).aspx)
20. Riyanto, S., & Hatmawan, A. A. (2020). *Metode riset penelitian kuantitatif: Penelitian di bidang manajemen, teknik, pendidikan dan eksperimen*. Deepublish.
21. Ross, S. A. (1977). The determination of financial structure: The incentive-signalling approach. *The Bell Journal of Economics*, 8(1), 23–40.
22. Sinaga, F. F., & Mustafa, M. (2019). Analisis pengaruh kebijakan hutang, kebijakan dividen, dan pertumbuhan perusahaan terhadap nilai perusahaan dengan profitabilitas sebagai variabel intervening pada perusahaan pembiayaan yang terdaftar di Bursa Efek Indonesia. *BISMA: Jurnal Bisnis dan Manajemen*, 13(1), 43–51.
23. Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models. *Sociological Methodology*, 13, 290–312.
24. Wahyuningrum, A. D., & Sunarto, S. (2023). Pengaruh likuiditas, profitabilitas, leverage dan ukuran perusahaan terhadap nilai perusahaan. *Jurnal Riset Akuntansi Politala*, 6(1), 122–136.
25. Yamasitha, Y., Assagaf, A., & Zefriyenni, Z. (2026). Assessment of manufacturing firm performance on firm values during and after COVID-19 epidemic. *Qubahan Academic Journal*, 6(1), 641–661.
26. Yuniarti, R., Soewarno, N., & Isnalita. (2022). Green innovation on firm value with financial performance as mediating variable: Evidence of the mining industry. *Asian Academy of Management Journal*, 27(2), 41–58.
27. Zhang, J., Li, Y., Liu, Z., Zhang, Y., & Miao, X. (2026). Does climate risk affect the financial performance of enterprises: Empirical evidence from A-share listed high-water-consuming enterprises in China. *International Review of Financial Analysis*, 117, 105243.
28. Zhao, X., Lynch, J. G., Jr., & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *Journal of Consumer Research*, 37(2), 197–206.